



the **Madera County Department of Agriculture**  
answer  
2003 book



# Madera County Department of Agriculture

The laws regarding pesticide use and employee safety are complex. The goal of this manual is to approach the subject using common sense. This manual covers, in plain English, the basic regulatory requirements.

In many instances, compliance with regulation is easier than it first appears. Growers have, over the years, discovered ways to simplify compliance, and we include many of their ideas. We begin with a page of definitions that are often misunderstood; cover requirements for growers, including employer responsibilities; and end with the most commonly requested references and forms.

While this manual should simplify compliance, it will not have the answer to every question. Please do not hesitate to call our office with questions on your specific operation.

## Contact Information and Office Location

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## DEFINITIONS MOST OFTEN MISUNDERSTOOD

**Employer:** An employer exercises primary direction and control over the activities of the worker. If a grower (or his employee) provides **immediate supervision** to workers, the grower is responsible for training and safety requirements.

No longer is the person issuing the paycheck automatically considered the employer. Only if the Farm Labor Contractor (or his employee) is immediately supervising the crew is the grower relieved of worker safety responsibilities.

**Handle:** All aspects of a pesticide application involve handling: mixing and loading; applying; and cleaning and repair of the equipment. Flaggers, tractor drivers pulling application rigs, and workers incorporating pesticides into the soil are also considered handlers.

**Pesticide:** Pesticides include insecticides, fungicides, rodenticides, and herbicides. Growers are sometimes unaware that a worker spot-spraying Roundup is a pesticide handler.

For safety purposes, these materials are also defined as pesticides: spray adjuvants, growth regulators, and defoliants. If a material has an **EPA Registration Number** on the label, it is a pesticide.

**Regularly Handle:** An employee that handles pesticides, whether it be for 5 minutes or 8 hours, for more than **6 days in a 30-day period**, is regularly handling those materials.

Employers must have a Medical Supervision Program, including blood testing, for employees who regularly handle pesticides containing organophosphates or carbamates.

**Restricted Entry Interval (REI):** To prevent unhealthy exposure, entry into fields is restricted for a length of time following pesticide applications. Restricted Entry Intervals may be hours or days long, depending upon the pesticide label.

Where problems have repeatedly been associated with specific pesticides, the Restricted Entry Interval has been extended by regulation. A chart of pesticides having **Extended Restricted Entry Intervals** is included under REFERENCES.

Restrictions in effect during the REI vary with the pesticide. Some exclude entry under any conditions, while others allow early entry for specific tasks if Personal Protective Equipment (PPE) is worn.

**Treated Field:** A field is considered treated for 30 days following a pesticide application. If the pesticide has a Restricted Entry Interval, the field is considered treated for 30 days following the expiration of the Restricted Entry Interval.

**Fieldworkers must be trained** before entering a Treated Field.

# Information for All Growers



# APPLICATION GUIDELINES

The following information applies to all applications, whether by growers or employees. The information begins with permits and applicator certification, covers information needed to plan and carry out an application, and ends with required paperwork. For quick reference to a particular topic, check the INDEX at the back of this manual.

## Non-Restricted vs. Restricted Material Use

### NON-RESTRICTED MATERIALS

**Non-restricted materials** are generally the least problematic, and so have the fewest requirements.

An **Operator Identification Number**, issued by the Ag Commissioner's Office, allows the application of non-restricted materials to the fields listed on the permit.

Growers do not need to be certified applicators to apply non-restricted materials.

All applications of non-restricted materials, including sulfur, **must be reported**.

### RESTRICTED MATERIALS

Some materials are more hazardous than others, even when used according to the label. California restricts the use of these materials. A list of California-restricted materials is included at the back of this manual under REFERENCES.

A **Restricted Materials Permit**, issued by the Ag Commissioner's Office, allows the application of California-restricted materials to the fields listed on the permit. The permit lists each California-restricted material the grower intends to use.

Prior to use of California-restricted materials, growers must **submit a Notice of Intent (NOI)**. Inspectors verify that the application rate and method are appropriate for the crop, and evaluate the site. This review is intended to provide an additional margin of safety for workers, the public, and surrounding crops.

Growers must be certified applicators to apply restricted materials; **Private Applicator cards** are issued by the Ag Commissioner's Office.

All applications of restricted materials **must be reported**.

MADERA COUNTY DEPARTMENT OF AGRICULTURE 342 MADERA AVENUE MADERA, CA 93637 Office: (559)675-7876 Recorder (NOI): (559)673-7411 FAX: (559)674-4071 RESTRICTED MATERIALS PERMIT PERMIT #1 20-09-2090374						
HAPPY VALLEY FARMS 555 RD 26 MADERA, CA 93637			Expiration Date: 12/31/2002 Effective Date: 01/01/2002			
JOE FARMER 555 RD 26 MADERA, CA 93637			Home Office Fax Cell			
Permittee Type	Permit Type	Special Conditions				
Private App (X)	Private (X)	Endangered	Ground	Water		
ORC/ORL	Commercial	Species				
No Cert		Non-Ag				
NOI required 74 hours prior to Application						
Num	Pesticide	Rate(s)	Form	Method(s)	Applicator(s)	
16011	PARAQUAT	WEEDS	All Reg	Air	Ground	PGG Grower
99900	NON-RESTRICTED				Ground	Grower
Conditions: VALID ONLY WITH CERTIFIED APPLICATOR						
I understand that this permit does not relieve me from liability for any damage to persons or property caused by the use of these pesticides. I waive any claim of liability for damages against the County Department of Agriculture based on the issuance of this permit. I further understand that this permit may be revoked when pesticides are used in conflict with the manufacturer's labeling or in violation of applicable laws, regulations and specific conditions of this permit. I authorize inspection at all reasonable times and whenever an emergency exists, by the Department of Pesticide Regulation or the County Department of Agriculture of all areas treated or to be treated, storage facilities for pesticides or emptied containers and equipment used or to be used in the treatment. (Form PR-ENF-125 (Rev. 07/99) Pesticide Enforcement Branch)						
Permit Applicant (Print):			(Sign):			
Title:			Issue Date:			
Issuing Officer:			Issue Date:			

## Private Applicator Certification

Growers must have a Private Applicator (PA) card to **use Restricted Materials**, or to **train their employees** in the safe use of pesticides.

The PA card qualifies the grower to use Restricted Materials on **property owned, leased, or rented** by the grower. The grower is also qualified to train and supervise employees in the use of pesticides. The PA card may never be used to perform work for hire.

California Department of Pesticide Regulation  
Pesticide Enforcement Branch  
STATE OF CALIFORNIA

**PRIVATE APPLICATOR CERTIFICATE**

CERTIFICATE NUMBER: \_\_\_\_\_ VALID THROUGH: DEC. \_\_\_\_\_

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

An employee holding a PA card is qualified to use Restricted Materials on property controlled by the employer. He may also train and supervise other employees. An employee holding a PA card is exempt from pesticide training requirements.

Growers may obtain a PA card by passing a multiple-choice test given at the Ag Commissioner's Office. The PA card is renewed every three years, as follows:

Last name beginning **A – H**: renewal in December 2003

Last name beginning **I – Q**: renewal in December 2004

Last name beginning **R – Z**: renewal in December 2005

A total of six Continuing Education (CE) hours over three years are required to renew a PA card. Two, of the six, CE hours must be in Laws and Regulations. Cardholders may choose to retake the test rather than attend CE meetings.

## Age Limitations

No person under the age of 18 shall mix or load pesticides where the label or regulation requires any of the following:

- Closed systems
- Full-body, chemical-resistant protective clothing
- Air-supplied respiratory protection

## Notice of Intent

Each person applying California-restricted materials must submit a Notice of Intent (NOI) to the Ag Commissioner's Office **24 hours prior** to the application. The NOI must be filed by someone involved with the application, ensuring clear communication between the applicator and our office. The NOI may be submitted by phone, fax, or in person.

An inspector will review the rate and method of the application, and evaluate the site. **Do not begin the application** of a California-restricted material before you receive approval from the Ag Commissioner's Office.

Once approved, the Notice of Intent is valid for the proposed day, and the four days following. If the application is not started within this time period, the NOI must be extended or cancelled.

## Bee Checks

The Ag Commissioner's Office maintains a registry of beekeepers requesting notification of nearby applications. Each person applying bee toxic materials must contact our office to check for beehives near the application site. Applicators must then contact each beekeeper, giving them **48 hours** notice of the proposed application. If the beekeeper chooses not to move hives adjacent to the application site, and you have concerns about potential damage to the bees, please call our office for assistance.

## Notice Prior to Applications

The grower must notify all persons **likely to enter** a treated area during an application or before the end of the Restricted Entry Interval. This includes employees, labor contractors, tenants, or other persons who will be working or walking within 1/4 mile of a treated site. Posting constitutes notice unless the label specifically calls for oral notification to be given. All notice of applications must be made in a language that the person receiving notice can understand.

## Field Posting

Fields are posted to prevent the exposure of unprotected persons. Posting is needed when required by the label or when the Restricted Entry Interval is longer than 7 days.

Signs must be posted **before the application begins**, but not more than 24 hours in advance. Workers may only enter a posted field if they are following precautions listed under Early Entry Requirements on the product label. Signs must be taken down within 3 days after the end of the Restricted Entry Interval, and before unprotected workers are allowed to enter.



The grower is responsible for the proper posting of fields. Posting must be readable from a distance of 25 feet, and must remain clearly legible throughout the application and the Restricted Entry Interval.

Signs must be **visible at all points of entry** to the treated area. If access to the field is not restricted to points of entry, signs must be posted at each corner and no more than 600 feet apart.

There are 4 different signs, depending on the application:

- General use
- Restricted Entry Interval of more than 7 days
- Fumigations
- Chemigations

A flowchart, indicating when to post and which sign to use, is found under REFERENCES.



## Availability of Product Labeling

A copy of the registered product label must be **at the use site**. The label must allow use of the material on the crop being treated. If a Section 18 or Special Local Need (SLN) label is being used, then a copy of that label must also be at the use site.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This label must be in the possession of the user at the time of pesticide application.

## Control of Containers

Pesticide containers **must be attended, when not locked** in a storage enclosure.

If pesticide is transferred to a service container during use, this secondary container should be marked with the pesticide name and signal word.

To prevent accidental poisonings, **NEVER** put pesticides in any container that has held food or drink, or other household products. Children are especially vulnerable to poisonings when familiar bottles or jars contain pesticides.

Never transport pesticides in the cab of a truck, or in a vehicle trunk containing food or animal feed.

## Backflow Prevention

To avoid contamination of water supplies while filling application equipment from an outside source, use one of the following:

- Air-gap separation
- Double check valve assembly
- Reduced pressure principle backflow protection device



## Standards of Care

Every applicator is responsible for keeping the pesticides applied on the target site. Application during windy conditions, or an inversion, may expose people or damage surrounding crops. Unsuitable equipment or methods may also cause harm.

**Conditions change** during applications. Applicators must continuously evaluate the safety of the application. If the wind comes up, or equipment begins to leak, stop the application. If fieldworkers show up nearby, stop the application. Often, applicators recognized a potential problem, but wanted to finish the last few rows.

## Container Rinsing and Disposal

Pesticide containers must be rinsed at the time of use, so that the rinse solution can be applied to the field being treated.

**Clean and dry containers** may be taken to the Madera Disposal landfill (21739 Road 19), with an Empty Pesticide Container Permit. These permits are issued by the Ag Commissioner's Office; call to arrange an inspection of your containers.

**Properly emptied pesticide bags** may be disposed of in two ways:

**Burning** - Pesticide bags may be burned at the use site, with a burn permit issued by the Valley Air District (phone: 559-230-5998 or 800-665-2876). For more information, visit their website at <http://www.valleyair.org>. The permit allows growers to burn bags accumulated during one day of use; such burning is exempt from burn day restrictions.

**Landfill disposal** - Larger accumulations of bags must be taken to the Madera Disposal Landfill.

## Pesticide Storage

Pesticides should be stored in the original container. The registered label must remain on the container, even when empty. Pesticide containers, whether full or empty, must be stored in a locked enclosure.

Enclosures holding containers with the signal words DANGER or WARNING must be **posted as pesticide storage areas**. The signs must state:



DANGER  
POISON STORAGE AREA  
ALL UNAUTHORIZED PERSONS KEEP OUT  
KEEP DOOR LOCKED WHEN NOT IN USE

The signs must be readable from a distance of 25 feet, and must be visible from any likely direction of approach.

## Equipment Cleaning

Application equipment must be thoroughly cleaned; this prevents unhealthy exposure, as well as damage to crops from residues in the equipment.

## Application Completion Notice

Pest control businesses must notify the grower **within 24 hours of completion** of the application. Growers are required to maintain a record of each notice received. This record may be a written log prepared by the grower, or copies of work orders, recommendations, or use reports. Notice must include:

- Date and time the application was completed
- Site identification number and location
- Treated acres
- Pesticides applied
- Restricted Entry and Pre-harvest Intervals

The grower must retain the Completion Notice record for **two years**.

## Pesticide Use Reports

California requires 100% use reporting—all materials applied for ag production must be reported, with the exception of fertilizers and soil amendments. This includes all pesticides, including sulfur, rodenticides, herbicides, defoliant, growth regulators, and adjuvants. If a material has an **EPA Registration Number** on the label, a report is required.

Use report forms can be confusing. Please contact our office with any questions, or if you would like some assistance in filling out the forms.

Grower-applied materials must be reported to the Ag Commissioner's Office **by the 10th day of the following month** (June applications must be reported by July 10). Use reports may be submitted by mail or modem or in person; they may not be submitted by fax.

The **grower is responsible** for the submission of Use Reports; while pesticide dealers or advisers often submit reports as a courtesy, the grower remains ultimately responsible for the timeliness and accuracy of the report.

Pest control businesses must report commercial applications to the Ag Commissioner's Office within 7 days of completion. The pest control business must also send a copy to the grower.

The grower must retain both private and commercial Use Reports for **two years**.

STATE OF CALIFORNIA  
DEPARTMENT OF PESTICIDE REGULATION  
PESTICIDE ENFORCEMENT BRANCH

PRODUCTION AGRICULTURE MONTHLY PESTICIDE USE REPORT : MULTIPLE SECTION  
REPLACES 104 (EST. 1991)  
SEE INSTRUCTIONS ON THE REVERSE OF THIS FORM

1. COUNTY 2. YEAR 3. GROWER'S NAME 4. GROWER'S ADDRESS 5. CITY 6. ZIP CODE

7. OPERATOR'S NAME 8. OPERATOR'S ADDRESS 9. CITY 10. ZIP CODE

SECTION	COUNTY	NAME	DATE AND TIME	SITE IDENTIFICATION NUMBER	DATE AND TIME OF APPLICATION	TOTAL PLANTED ACRES	TOTAL TREATED ACRES	APPLICATOR	APPLICATOR'S REGISTRATION LABEL	TOTAL PRODUCT USED (GAL OR LBS)	DATE PER ACFT	SOLUTION	DATE RESISTIV	MANUFACTURER'S NAME OF PRODUCT
1	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
2	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
3	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
4	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
5	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
6	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
7	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
8	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
9	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
10	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA

REPORT PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_ REVIEWED BY \_\_\_\_\_  
TOP AGENCY USE ONLY

# APPLICATION CHECKLIST

The framework of regulations guiding pesticide use is complex, but the goal is straightforward: avoid accidental exposure.

## 1) Read the label for each material

- ✓ **Signal word**, indicating the level of immediate toxicity to humans  
DANGER > WARNING > CAUTION, in decreasing order of toxicity
- ✓ **Hazards to humans**, including symptoms of exposure
- ✓ **Personal Protective Equipment (PPE)** to be worn
- ✓ **Hazards to Environment**, including bee toxicity, drift concerns, and groundwater protection
- ✓ **Crop, rate, and dilution** allowed by label
- ✓ **Field Posting** requirement
- ✓ Length of **Restricted Entry Interval (REI)**, and Pre-Harvest Interval

## 2) Plan the application

- ✓ **Train the applicators** for this application  
If material is a carbamate or organophosphate, document employee use.  
Is medical supervision, including blood testing, necessary?
- ✓ Obtain necessary **Personal Protective Equipment**, eyewash, and decontamination supplies.
- ✓ If using a **California-restricted material**:  
Is it listed on your current Restricted Material Permit for Madera County?  
Did you **file a Notice of Intent** 24 hours prior to the proposed application?  
Did an inspector approve the Notice of Intent?
- ✓ If using a material **toxic to bees**:  
Did you call our office to check for beekeepers with hives near your site?  
Did you contact each of the beekeepers?
- ✓ Evaluate nearby **sensitive sites** (schools, residential areas, waterways).  
Assign your **more experienced applicators** to fields near sensitive sites.  
Time your applications to avoid problems.

- ✓ **Notify** all people likely to be within 1/4 mile of the application site.  
Contact farm labors contractors each morning before work.  
Tell workers, and post the information in a central location.
- ✓ **Post field** as required (see Posting Flowchart, under REFERENCES).
- ✓ Calibrate application equipment, and check for leaky nozzles. Check closed system, if required.

### 3) Mix and load

- ✓ Use Personal Protective Equipment and closed systems as required. **Working with concentrated pesticide can be dangerous.**
- ✓ Use an accurate measuring device. Too high a rate may result in illegal residues, and too low a rate can be ineffective.
- ✓ **Rinse containers as they are emptied**, applying rinse solution to target site.

### 4) Make the application

- ✓ **Double check the area** for work crews and bee hives.
- ✓ Ensure that pesticide handlers are wearing **Personal Protective Equipment**.
- ✓ Watch the weather; **adjust or stop the application as needed**.
- ✓ **Monitor your surroundings continuously.** Cars and people have a way of unexpectedly appearing.

### 5) After the application

- ✓ Clean the application equipment.
- ✓ Return cleaned containers to pesticide storage area.
- ✓ Display **Application-Specific Information** within 24 hours, for employees who will be working within 1/4 mile of the treated field.
- ✓ **Remove field posting** within 3 days after expiration of Restricted Entry Interval (REI).
- ✓ **Submit Use Report** to the Ag Commissioner's Office before the 10th day of the following month.



## SULFUR APPLICATION TECHNIQUES

While sulfur is a natural element used safely for thousands of years to control insects and diseases, exposure to sulfur can cause irritation of the skin and eyes, and breathing difficulty. Sulfur, like poison oak, is a sensitizer; and may after multiple exposures cause an allergic reaction in some people.

### Application Conditions

Do not apply sulfur during **windy conditions**, or during an **inversion**. Often associated with "dead calm" conditions, inversions occur when a warm air layer forms a cap above the cooler air below. The cap blocks vertical air movement from the treated site, trapping and concentrating spray droplets and dust. Rather than dispersing, the pesticide often moves as a concentrated cloud away from the treated site. Application conditions are best with air movement of about **2 miles per hour**, allowing normal dispersion.



Leave an **adequate buffer zone** to protect sensitive areas. An adequate buffer zone allows enough distance for dust or spray to settle within the boundaries of the treated site.

Slow engine RPM at row ends, and **shut down when making turns**.

If near urban areas or roadways, **apply sulfur during times of minimum activity**.

Consider applying **wettable sulfur** in fields near sensitive areas.

### Look Beyond the Application

**Be aware** of the concerns of neighbors. Often, people want only to know what materials are being applied. Others may request notification. If you have concerns about your situation, please call our office for assistance.

Consider using your **more experienced applicators** near sensitive areas such as schools, bus stops, busy roadways, and residential areas. Ultimately, the equipment operator is the person who shapes public opinion and legislative direction.

# GROUNDWATER PROTECTION TECHNIQUES

State agencies are proposing additional restrictions to prevent runoff from contaminating surface or groundwater. To protect our aquifers, use the lowest effective application rate, and manage irrigation to avoid runoff of contaminated water, sediment, or soil.

## Irrigation Management

Evaluate **distribution uniformity** of the irrigation system.

Increase irrigation efficiency by using **low volume emitters** or microsprinklers.

Use **tailwater return systems**.

Maximize both crop yield and water conservation by using **management systems such as CIMIS** (California Irrigation Management Information System, University of California) to plan irrigations.

## Wellhead Protection

**Prevent backflow** into wells at mixing site. **Protect wellheads**.

## Preventing Contamination of Groundwater

Choose pesticides with **reduced runoff or leaching potential**.

Use the **lowest effective rate**.

Keep pesticides on the **target site**.

Consider **weather conditions** and **irrigation schedules** when planning applications, to avoid runoff.



# Employer Responsibilities



# EMPLOYEE TRAINING

The goals of worker safety regulations are threefold: to educate workers about the pesticides used by your operation, to instill safe work habits, and to establish effective accident response.

Employees must receive training in the safe use of pesticides (Pesticide Handler Training Program), and must have access to information on the hazards of working with pesticides (Hazard Communication), and applications that have been made within 1/4 mile of their worksite (Application-Specific Information).

## Pesticide Handler Training Program

Employees must be trained in safe handling procedures **prior to** work with any pesticide.

A **qualified trainer** must conduct the training. Qualified trainers include:

- Private Applicator (PA) cardholders
- Commercial Applicators (QAL, QAC)
- Pest Control Advisors (PCA)
- Persons who have completed the EPA “instructor trainer” program

The training must cover **required topics**. The topics are listed on the Pesticide Safety Training Record form, included at the back of this manual under FORMS. Employees must receive training in the topics at least **annually**.

In addition, employers must review each **pesticide label** with employees, **prior to use**. Emphasize the potential health hazards of the material, and the Personal Protective Equipment to be worn.

Training sessions must be **documented**; there are places on the Pesticide Safety Training Record form to record both annual and pesticide-specific training. Complete a form for each employee trained, and have them sign where indicated.

Inform employees that they must be able to **demonstrate their understanding** of the training, during pesticide use inspections. Inspectors are now required to question pesticide handlers on the training topics.

## Written Training Program

Employers must document the videos, pamphlets, and other materials used to train employees. Completion of the **Written Training Program** form, included under FORMS, fulfills this requirement.



## Required Records

Most growers organize their **Pesticide Handler Training Program** in a binder, including the following:

- a completed Written Training Program form
- the training materials used
- a completed Pesticide Safety Training form for each trained employee

The binder is a more useful reference when sectioned by year, making it easy to determine when employees received annual training, and which specific pesticides have been covered.

Employers must retain the documented Pesticide Handler Training Program for **two years**, in a location accessible to employees.

## Hazard Communication

**Before employees handle pesticides**, the grower must provide information about the hazards involved, and how to safely use these materials. This information, described in **Pesticide Safety Information Series (PSIS) A-8**, includes the following:

1. **PSIS A-8 leaflet:** Hazard Communication Information

Fill out the sections on emergency medical care, pesticide use, and records.

2. **Other PSIS leaflets** applicable to your operation

A packet containing each of the PSIS leaflets, in English or Spanish, is available at our office; or may be accessed online (<http://www.cdpr.ca.gov>).

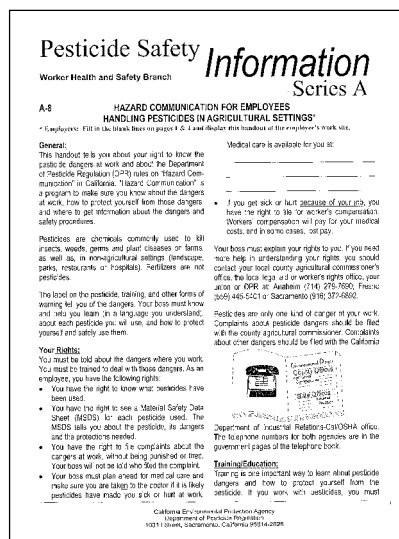
3. **Pesticide Use Records** for pesticides employees have handled  
These must be maintained for two years.

4. **Material Safety Data Sheets (MSDS)** for pesticides employees have handled

## Required Records

Most growers maintain Hazard Communication information in a binder or file cabinet. Keep the information in the shop or break room—somewhere employees can access the information without having to ask.

The employer must maintain this information during the time that employees handle pesticides.



## Application-Specific Information

Employers must notify all employees who **work within 1/4 mile** of fields that have been treated with pesticides, including the following:

- ✓ Identification of the treated area
- ✓ Product name, active ingredient, and EPA Registration Number
- ✓ Time and date of application
- ✓ Restricted Entry Interval

Some growers have posted a bulletin board with a map of their fields, and note the application information on the appropriate field. Others maintain this information in a binder, using Use Reports or work orders. Either method is fine, as long as employees know where the information is kept, and can access it without having to ask.

This information must be accessible to the employee **within 24 hours of the application**, and must remain available until 30 days after the expiration of the Restricted Entry Interval.

# EMPLOYEE SAFETY

The goal, when supervising pesticide use, is to instill safe work practices in your employees. Emphasize safety until it becomes habit.

## Supervision of Pesticide Use

Employers must supervise employees to:

- Provide guidance as employees begin the application
- See that employees follow the directions on product labeling
- Intervene if employees fail to follow safe handling procedures
- Respond if unexpected circumstances arise

Applications of **Restricted Materials** must be supervised by a Private Applicator (PA) cardholder, or a Commercial Applicator (QAL,QAC). The supervisor must be aware of the conditions at the site, and be able to direct that the application be changed, or stopped, if necessary.

Employees handling **DANGER** pesticides may not work alone, unless they are in contact with another adult (phone, radio, or in person) every **two hours**. At night, they must be in contact every hour.

## Personal Protective Equipment (PPE)

Probably the most important—and most challenging—task, for an employer, is to ensure that employees use Personal Protective Equipment. Generally, the growers who have the least problem have the following policy: Use it, or find work elsewhere. They simply don't want the liability. Employees holding a valid PA card share both the responsibility and the liability, should they fail to wear PPE.

All PPE required for employee activities must be provided by the employer. When not in use, PPE must be cleaned and **stored apart from pesticides**. Employees must never take contaminated PPE home.



## Eye Protection

Employees must wear eye protection when:

- **Required by label**
- **Mixing and loading** pesticides
- **Adjusting or maintaining** equipment
- Using **closed systems**
- Using **hand-held** equipment
- Using **towed or vehicle-mounted** equipment

Exceptions:

- a) Vehicle with enclosed cab, or
- b) Spray nozzles located below driver, and pointing downward, or
- c) Applications involving injection or incorporation into soil



Protective eyewear includes: **goggles, safety glasses, a face shield, or full-face mask.** Sunglasses and eyeglasses do not provide adequate protection, unless equipped with temple and brow protection.

## Emergency Eyewash

If the **label requires protective eyewear**, the handler must also carry **one pint of water**, for emergency eye washing. The eyewash may be carried on a belt or shoulder strap, or mounted on the vehicle, but it must be **within reach**. The water must be clean, and of a temperature that will not damage the eyes.

## Gloves

Employees must wear chemical-resistant gloves when:

- **Required by label**
- **Mixing and loading** pesticides
- Using **hand-held** equipment
- **Adjusting or maintaining** equipment

Chemical-resistant materials include rubber or neoprene. Labels sometimes specify other glove types; solid fumigants generally require cotton gloves.

Leather gloves may be worn over chemical-resistant linings, although care must be taken not to touch unprotected body parts with the contaminated over-glove.

Gloves must NEVER have an absorbent lining.

## Coveralls

Employees must wear coveralls when:

- **Required by label**
- Handling **DANGER** or **WARNING** pesticides

## Other PPE must be worn if required by the label

- **Headgear:** hood, or hat with wide brim
- **Footwear**
- **Apron:** covering from mid-chest to knees
- **Rain suit:** covering head and body

Rain suits are **not to be worn** when daytime temperatures **exceed 80°F**, or nighttime temperatures exceed 85°F.

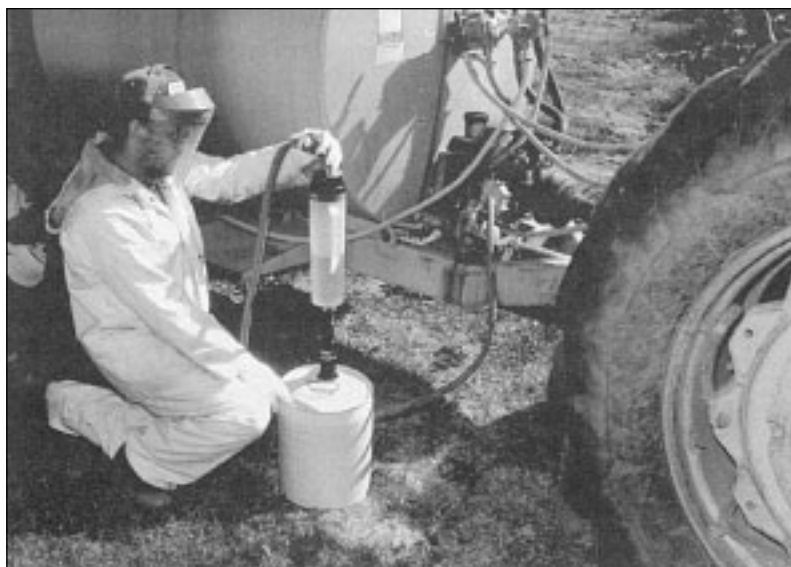
## End-of-day Cleanup

Employers must provide a **change area** where employees can change out of work clothing, and thoroughly wash themselves. The employer must provide **soap, water, and clean towels**, as well as a clean area for employees to store personal clothing.

## Closed Systems

Closed systems remove pesticide from the original container, rinse the container, and transfer the pesticide to the mix tank, through sealed hoses that do not allow exposure to the concentrated pesticides. When used correctly, closed systems provide important protection to handlers; please call our office with any questions or concerns you may have.

Employers must provide closed systems for **employees who mix or load** pesticides with the signal word **DANGER**. No employee is to mix or load **DANGER** pesticides except through a closed system. This requirement does not apply to employees who handle a total of **one gallon or less per day**, from original containers of one gallon or less.





# RESPIRATORY PROTECTION PROGRAM

If employees handle materials requiring respirators, the grower must have a **written Respiratory Protection Program**. The program, described in **Pesticide Safety Information Series (PSIS) A-5**, includes the following:

## 1. Written Operating Procedures

The employer must have written operating procedures for selecting, fitting, cleaning, and maintaining respirators. Completion of the form (included at the back of this manual, under FORMS) fulfills this requirement.

## 2. Documentation of Employee Training

Employees must be trained prior to use, and then annually, as described in PSIS A-5. Maintain a list of employees trained, including the dates of training.

## 3. Employee Statement of Medical Condition/Medical Evaluation

Each employee must complete and sign a Statement of Medical Condition form (included under FORMS).

If an employee has a medical condition that might limit the use of a respirator (heart or lung disease, high blood pressure, perforated ear drum), the employee must be examined by a physician. A copy of the physician's evaluation, and conditions for respirator use, must be on file for the duration of the individual's employment.

## 4. Maintenance of Emergency Use Respirators

Respirators for emergency use must be inspected at least monthly, while employees require respiratory protection. Documentation of the most recent inspection must be kept with the respirator.

### Pesticide Safety *Information* Series A

Worker Health and Safety Branch

#### A-5 RESPIRATORY PROTECTION

In Agricultural Settings

##### General Information:

This fact sheet provides basic information to pesticide users on respiratory protection and helps you to comply with California's respiratory protection regulations (Title 23 California Code of Regulations section 6320).

Regulations require employers to have a written respiratory protection program at the work site. The program must cover selection, fitting, use, inspection, maintenance and cleaning of respirators. Approval of the content of the Pesticide Safety Information Series (PSIS) A-5 meets the minimum requirements for the written program. Appendix 1 contains sample written procedures.

##### Control of Respiratory Protection:

Engineering controls offer the best way to control airborne hazards. Examples of engineering controls include enclosure or confinement of the operation generating the hazard, ventilation to keep the airborne concentration below accepted levels, or substitution of less toxic materials. In some situations, the use of engineering controls, such as closed systems or enclosed cabs, may prevent the worker from wearing respiratory protection (PPE A-3) whenever these measures are possible. Pesticide use creates a hazardous working environment. If hazardous pesticide concentrations cannot be controlled in other ways, you need to use personal respiratory protection. You may also need respiratory protection in emergency situations where the exposure is relatively brief.

Federal and state laws require pesticide labels to contain safety precautions. The label will include respiratory protection information. If you are expected to use or spray, respiratory

protection may be necessary when using products with labels that recommend "avoid spray".

Your employer must provide personal respiratory equipment required and you must use the equipment provided. Your employer must provide respiratory equipment approved for the particular exposure by the National Institute for Occupational Safety and Health (NIOSH).

##### Training:

You must receive training initially and annually in the correct use, cleaning, care and limitations of the respiratory equipment you may have to use.

##### Selection and Fitting of Respirators:

Proper respirator selection is critical. Pesticide labels are the primary source of information on the type of respiratory protection required. With information from the label, a safety equipment supplier will be able to provide you with the correct type of respiratory equipment. When exposed to pesticides that irritate the eyes, nose or throat, wear a full-face respirator for protection. If using air-purifying respirators, the air-purifying element (filter or cartridge) must be approved for use against the specific hazard by NIOSH. For additional help in the selection process, consult one of the sources listed below.

Respirators come in different sizes to accommodate different sized faces. Every respirator system must meet or exceed the fit and testing the respiratory equipment they use. The fit test is performed when it is normal, uncontaminated air, to get accustomed to it. Then wear the respirator in a test atmosphere.

California Division of Industrial Hygiene  
Pesticide Branch  
800 N. Street, Sacramento, California 95834-3510

## Required Records

Most growers organize their **Respiratory Protection Program** in a binder, including the following:

- a completed Written Operating Procedures form
- documentation of employee training
- a completed Employee Statement of Medical Condition form, for each employee requiring respiratory protection

Employers must retain the documented Respiratory Protection Program while employees handle materials requiring respiratory protection.

## Use of Respirators

Employers must assure that employees use respirators as required by the label. Proper respiratory protection is particularly important during **fumigations**. If you are unsure which type of respirator is appropriate for your situation, please contact our office for assistance.

Employees with **facial hair** that prevents an adequate seal must use respirators that do not rely on a face-to-facepiece seal.



## EMPLOYER RESPONSIBILITIES

**Organophosphates and carbamates** are cholinesterase inhibitors. Exposure to pesticides containing organophosphates or carbamates can **affect nerve function**. Some common pesticides containing cholinesterase inhibitors include, but are not limited to:

## Employee Use Records

## Regularly Handle

June 3

*July 3*

[illegible]

## Physician's Agreement

When employees regularly handle an organophosphate or carbamate pesticide, with the signal word DANGER or WARNING, the employer must have a **written agreement signed by a physician**, stating that the physician has agreed to provide medical supervision for the employees. The employer must keep the agreement for **three years**, and provide a copy to the Ag Commissioner's office.

Medical supervision includes an initial blood test to determine the employee's usual or "**baseline**" level of **cholinesterase**, and then periodic blood tests to determine if the level of cholinesterase has dropped, as the result of an exposure. The initial blood test must occur prior to use of organophosphate or carbamate pesticides. The employee is then tested at the end of each of the first three **30-day periods of regular handling**. Further testing occurs at a frequency recommended by the physician, with test intervals not to exceed two years. Employers must keep cholinesterase test results and physician recommendations for **three years**.

## Required Records

Most growers organize their **Medical Supervision Program** in a binder, including the following:

- employee use records
- the Physician's Agreement
- cholinesterase test results and physician recommendations

Employers must retain these materials for **three years**; they must be accessible for review.

## Medical Supervision Posting

Medical supervision information must be posted at the workplace, or in each work vehicle. The posting must be **prominent**, and include: the **name, address, and telephone number** of the physician providing medical supervision.

### Pesticide Safety *Information* Series A

Worker Health and Safety Branch

A-11

#### MEDICAL SUPERVISION

##### General Information:

Medical supervision involves contracting with a licensed physician for occupational health evaluation and illness prevention. Your employer must provide medical supervision if you regularly handle, mix, and/or apply for more than 6 days in any 30-day period an organophosphate or carbamate pesticide (carbamates with the signal word "DANGER" or "WARNING" on the label). Organophosphates include Chlorpyrifos, diazinon, and Loflencarb. Carbamates include Laniquip, Temik, and Scurf.

Cholinesterase is an enzyme in the body that affects nerve function. Cholinesterase is the target in your body for organophosphates and carbamates. Cholinesterase tests measure your response to organophosphates and carbamates. The workplace safety program must include cholinesterase monitoring as an integral part. Medical supervision must include cholinesterase monitoring. Other cholinesterase tests are not acceptable; your employer must:

- evaluate the workplace
- control problems with toxic equipment
- correct bad work habits
- arrange for your own exposure before you become ill.

At the present time, a blood test is the only practical way to obtain this information.

##### Baseline:

Monitoring cholinesterase requires establishment of a pre-exposure "baseline" level. A baseline test is required for each employee who mixes, loads or applies these pesticides on a regular basis. Your baseline blood sample should be collected when you have not been exposed to organophosphates or carbamates for at least 30 days.

##### Cholinesterase Testing:

For organophosphate exposure to pesticides, cholinesterase testing should include both red blood cell (RBC) and plasma (or serum) cholinesterase (AChE). The test

tests have different meanings; a physician needs the combined report to evaluate exposure. Carbamates react with the enzyme differently than do organophosphates. Following exposure to carbamates, the blood cholinesterase activity should return to baseline quickly or the physician will not be able to determine the extent of exposure or reassurance of safety problems on the job.

##### New employees must:

- be tested at the end of each of the first three 30-day periods of regular handling.
- Test the second exposure is reduced to every 90 days, or as recommended by the medical supervisor.
- Thirty-day periodic tests on the first day of exposure, if possible, that each period may be suspended if a time of non-use. After the first three tests, the need to suspend the testing must be determined by the work practices, pesticide use or prior test results.

Laboratory methods for cholinesterase enzymes differ. Results obtained by different methods cannot easily be compared. Therefore, the same laboratory, using the same method should perform all cholinesterase monitoring for a given employer.

##### Response:

A change in cholinesterase may result from something other than pesticide exposure. However, you should never assume this to be the case. Your employer must investigate work practices, and take steps to correct unsafe situations, whenever your cholinesterase level drops below 80% of your baseline value. If your RBC level drops to 70% or less, or your plasma level drops to 60% or less of your baseline, your employer must stop all exposure to organophosphates or carbamates. Exposure to these pesticides must not resume until both levels return to at least 80% of your baseline level.

To expedite laboratory test result reporting, the physician may have the laboratory call the results to

California Environmental Protection Agency  
Occupational and Pesticide Regulation  
800 N. Street, Sacramento, California 95833-0001

# ACCIDENT RESPONSE

The most serious health effects occur with lengthy exposure to concentrated pesticides. Thus, in an emergency, the goal is to quickly dilute the contaminating material. In many situations, having a gallon of water to immediately flush exposed skin is more helpful than a state-of-the-art washing facility that is ten minutes away.

## Decontamination Facility

Employers must provide decontamination facilities that include:

- ✓ Clean water
- ✓ Soap
- ✓ Paper towels
- ✓ Extra pair of coveralls

All **mix/load sites** must have a decontamination facility. Decontamination facilities must be located **within 1/4 mile of applicators**. If the field is large, facilities may be located at the nearest point of vehicular access.



Some growers put several gallon jugs of water in a plastic box; together with the soap, towels and coveralls; and carry the box on the tractor or in the truck bed. Others, with more employees, mount a small water tank on a trailer, add the other supplies, and tow the trailer from site to site.

## Emergency Medical Care

Employers must specify a facility that will provide emergency care to employees who handle pesticides. The grower must **post**, at each **work site**, the following:

- Name of the medical facility
- Location of the facility
- Telephone number of the facility

The posting may be in the window of a vehicle, or on application equipment, or on decontamination facilities, if they are at the work site. The posting should be **prominent** enough that a passerby could phone for help, if necessary.

## Employee Transport

Whenever there is reason to suspect that an employee has an adverse health effect due to an exposure to pesticides, the **employer must provide transportation** for that employee to a medical facility; the employee may not drive himself.



## FIELDWORKER SAFETY

**Treated Field:** A field is considered treated for 30 days following a pesticide application. If the pesticide has a Restricted Entry Interval, the field is considered treated for 30 days following the expiration of the Restricted Entry Interval.

Fieldworkers must be trained before entering a Treated Field.

### Fieldworker Training

Agricultural fieldworkers, including nursery workers, must receive training before beginning work in a **treated field**. The training must include the **required topics**, listed on the Fieldworker Safety Training Record form (at the back of this manual under FORMS), and it must have occurred **within the last 5 years**. A **qualified trainer** (see page 16) must conduct the training.

Fieldworkers possessing a valid “verification of training” **blue card**, issued under the authority of the EPA, are considered to be trained.

**IMPORTANT:** If a grower (or his employee) provides **immediate supervision** to field workers, the grower is considered the employer and is responsible for training and safety requirements.

No longer is the person issuing the paycheck automatically considered the employer. Only if the Farm Labor Contractor (or his employee) is immediately supervising the crew is the grower relieved of worker safety responsibilities.

## Hazard Communication

Before employees work in treated fields, the employer must provide information about pesticides applied to these fields. This information, described in **Pesticide Safety Information Series (PSIS) A-9**, includes the following:

✓ **PSIS A-9 leaflet: Hazard Communication for Fieldworkers**

Complete the sections on emergency medical care, pesticide use, and records. This information may be kept in a binder at the worksite, or posted at the shop, but employees must be able to access it without having to ask.

✓ **Pesticide Use Records and Material Safety Data Sheets (MSDS)**

This information is the same as that required under Hazard Communication for employees that handle pesticides; one set of records will fulfill the requirements for both handlers and fieldworkers. During training, let fieldworkers know where the information is kept.

## Application-Specific Information

Growers must notify all fieldworkers who **work within 1/4 mile** of fields that have been treated with pesticides. This information is the same as that required under Application-Specific Information for employees that handle pesticides; one set of records will fulfill the requirements for both handlers and fieldworkers. During training, let fieldworkers know where the information is kept.

## Fieldworker Safety

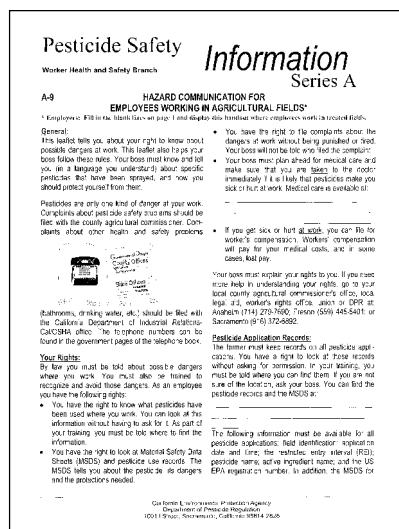
### NEVER allow workers:

- into a site that is being treated with a pesticide
- into any area where they may be exposed to pesticide from a nearby application

## Restricted Entry Intervals

To prevent unhealthy exposure, entry into fields is restricted for a length of time following pesticide applications. **Restricted Entry Intervals** may be hours or days long, depending upon the pesticide label.

Where problems have repeatedly been associated with specific pesticides, the Restricted Entry Interval has been **extended by regulation**. A chart of pesticides having Extended Restricted Entry Intervals is included under REFERENCES, at the back of this manual.



## Early Entry into Treated Fields

Employees may enter a treated field during a Restricted Entry Interval, under certain conditions:

- **to conduct pesticide handling activities**, such as soil incorporation, provided employees wear PPE listed on the label for pesticide handlers
- **to conduct “no contact” activities** (activities which do not allow contact with treated plants, soil, water, or equipment), including operation of equipment from an enclosed cab
- **to conduct “limited contact” activities** (activities which allow minimal contact, and only to hands and forearms, feet and legs below the knees), including irrigation, provided:
  - 1) fieldworkers wear PPE listed on the label for Early Entry
  - 2) entry occurs at least 4 hours after completion of the application, and the employee does not remain in the field more than 8 hours, in 24 hours
  - 3) the label does not require both oral and posted notification
- **to conduct “activities not involving hand labor,”** provided:
  - 1) fieldworkers wear PPE listed on the label for Early Entry
  - 2) entry occurs at least 4 hours after completion of the application, and the employee does not remain in the field more than 1 hour, in 24 hours

Fieldworkers must receive training on the pesticide label, including use of required PPE, prior to field entry.

## Emergency Eyewash

All fieldworkers engaged in Early Entry activities, in a treated field for which the **label requires protective eyewear**, must carry **one pint of water** for emergency eye washing. The eyewash may be carried on a belt or shoulder strap, or mounted on the vehicle the worker is using, but it must be **within reach**. The water must be clean, and of a temperature that will not damage the eyes.

## End-of-day Cleanup

Employers must provide a **change area** for fieldworkers engaged in Early Entry activities, where employees can change out of work clothing, and thoroughly wash themselves. This facility is the same as that required for employees that handle pesticides; one facility will fulfill the requirements for both handlers and fieldworkers.

## Accident Response

### Decontamination Facility

Employers must provide decontamination facilities for workers in treated fields, who are engaged in activities involving contact with treated surfaces. Handwashing facilities provided in conjunction with toilet facilities will meet this requirement. Decontamination facilities must be located **within 1/4 mile of fieldworkers**. If the field is large, facilities may be located at the nearest point of vehicular access.

### Emergency Medical Care

Employers must locate a facility that will provide emergency care to employees who work in treated fields. The fieldworkers, or their field supervisor, must know the name and location of the facility.

### Employee Transport

Whenever there is reason to suspect that a fieldworker has an adverse health effect due to an exposure to pesticides, the employer **must provide transportation** for that employee to a medical facility; the employee may not drive himself.



## A WORD ABOUT INSPECTIONS

"Courtesy" inspections are available to assist the grower; no inspection form is filled out. Together, the grower and the inspector evaluate the farming operation, and review the requirements specific to that operation. The inspector can often offer suggestions which will simplify compliance.

Courtesy inspections must be pre-arranged; give us a call before problems arise!

### Application and Mix/Load Inspections

At an application inspection, one of the first things the inspector will ask for is a copy of the product label. The label must be at the site in case of an accident, and is used by the inspector to determine the requirements of the application.

Often, the inspected party will be an employee. If you are interested in being present for the inspection, have the employee **carry your phone number**, and we will give you a call from the field.

Some growers have put together **decontamination kits** for employees to carry on application equipment, or have at the site. A plastic tote box containing soap, paper towels, and a clean pair of coveralls can address many of the common noncompliances found during inspections. If water is not available at the site, include 2 – 3 gallons of water. Attach an Emergency Medical Care form (found at the back of this manual, under FORMS) to the tote, in clear view. It's a good idea to include extra gloves, eye protection and eyewash. Although extras are not required, the failure to wear eye protection and gloves is a common noncompliance found during inspections. Also, applicators often fail to have eyewash immediately available (within reach). Inspectors are obligated to stop an application until the applicator is wearing all required personal protective equipment.

Inform employees that they must be able to **demonstrate their understanding** of the training, during inspections. Inspectors are now required to question pesticide handlers and fieldworkers on the training topics.

Laws and regulations governing pesticide applications are based on the actions of the "worker at the end of the hose." Carelessness at the ends of rows, or during border sprays, can have far-reaching implications. Every application is a public demonstration of pesticide handling in California; and the public will be reassured, or concerned, based on the applicators that they observe.

### Headquarters Inspections

**Headquarters inspections** are conducted to verify that records are complete, worker safety requirements are being met, and pesticides are being stored in a safe manner. Inspectors must conduct headquarters inspections in association with drift or illness investigations, or pesticide use inspections involving noncompliances.

## REQUIRED RECORDS

### All Growers

- ✓ **Restricted Materials Permit/Operator Identification Number** – retain 2 years
- ✓ **Pesticide Use Reports** – retain 2 years
- ✓ **Application Completion Notices** – retain 2 years

### All Growers with Employees

- ✓ **Emergency Medical Care** information must be posted at a central work location any time employees are handling pesticides or entering treated fields.
- ✓ **Pesticide Handler Training Program**, includes Written Training Program, Pesticide Safety Training Records – retain 2 years
- ✓ Completed copy of **Pesticide Safety Information Series A-8** must be accessible to employees that handle pesticides, without having to ask. This must remain accessible while employees handle pesticides.
- ✓ Completed copy of **Pesticide Safety Information Series A-9** must be accessible to fieldworkers, without having to ask. This must remain accessible while workers are employed to perform fieldwork such as pruning, harvesting, irrigating or any other activities where workers enter treated fields.
- ✓ **Hazard Communication Information** and **Application-Specific Information** must be accessible as well. These must remain accessible while employees handle pesticides or work in treated fields.
- ✓ **Respiratory Protection Program**, includes Written Operating Procedures, documentation of employee training, and Employee Statement of Medical Condition/Medical Evaluation – These must be available while employees handle materials requiring respirators.

### All Growers with Employees that Regularly Handle Organophosphates or Carbamates

- ✓ **Medical Supervision** information must be posted at the workplace any time employees are regularly handling organophosphates or carbamates.
- ✓ **Medical Supervision Program**, includes employee use records, Physician's Agreement, test results and recommendations – retain 3 years

# References and Forms

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<i>(English and Spanish)</i>	

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# CALIFORNIA RESTRICTED MATERIALS LIST

Pesticides with the active ingredients listed below are restricted in California. Check active ingredients on pesticide labeling, to see if additional California restrictions apply.

**Acrolein**, when labeled as an aquatic herbicide

**Aldicarb** (Temik)

**All dusts**, excepting sulfur, lime, and certain copper compounds

**All Section 18 materials** (Emergency Exemption)

**Aluminum Phosphide** (Phostoxin)

**4-Amino Pyridine** (Avitrol)

**Azinphos-Metyhl** (Guthion)

**Bentazon**

**Calcium Cyanide**

**Carbaryl** (Sevin)

**Carbofuran** (Furadan)

**Chloropicrin**

**Dazomet**

**Diglycolamine** salt of 3,6-Dichloro-O-Anisic acid (Dicamba, Banvel)

**Disulfoton** (Di-Syston)

**Endosulfan** (Thiodan)

**Ethoprop** (Mocap), when labeled for turf use

**Fenamiphos** (Nemacur)

**Lindane**

**2-Methyl-4- Chlorophenoxyacetic Acid** (MCPA)

**Metam Sodium Methamidophos** (Monitor)

**Methidathion** (Supracide)

**Methomyl** (Lannate)

**Methyl Bromide**

**Methyl Isothiocyanate** (MITC)

**Mevinphos** (Phosdrin)

**Molinate** (Ordram)

**Norflurazon**

**Oxydemeton-Methyl** (Metasystox-R)

**Paraquat** (Gramoxone)

**Parathion-Methyl**

**Potassium N-Methyldithiocarbamate** (Metam-Potassium)

**Phorate** (Thimet)

**Propanil**

**Sodium Cyanide**

**Sodium Fluoroacetate** (compound 1080)

**3-Chloro-P-Toluidine**

**Hydrochloride** (Starlicide)

**Strychnine**

**Sulfotepp**

**1,3-Dichloropropene** (Telone II)

**Thiobencarb** (Bolero)

**Tribufos** (Def, Folex)

**Tributyltin**, when labeled for fouling organisms in an aquatic environment

**2,4-Dichlorophenoxyacetic acid** (2,4-D)

**2,4-Dichlorophenoxybutyric acid** (2,4-DB)

**2,4-Dichlorophenoxypropionic acid** (2,4-DP)

**Zinc Phosphide**



## EXTENDED RESTRICTED ENTRY INTERVALS

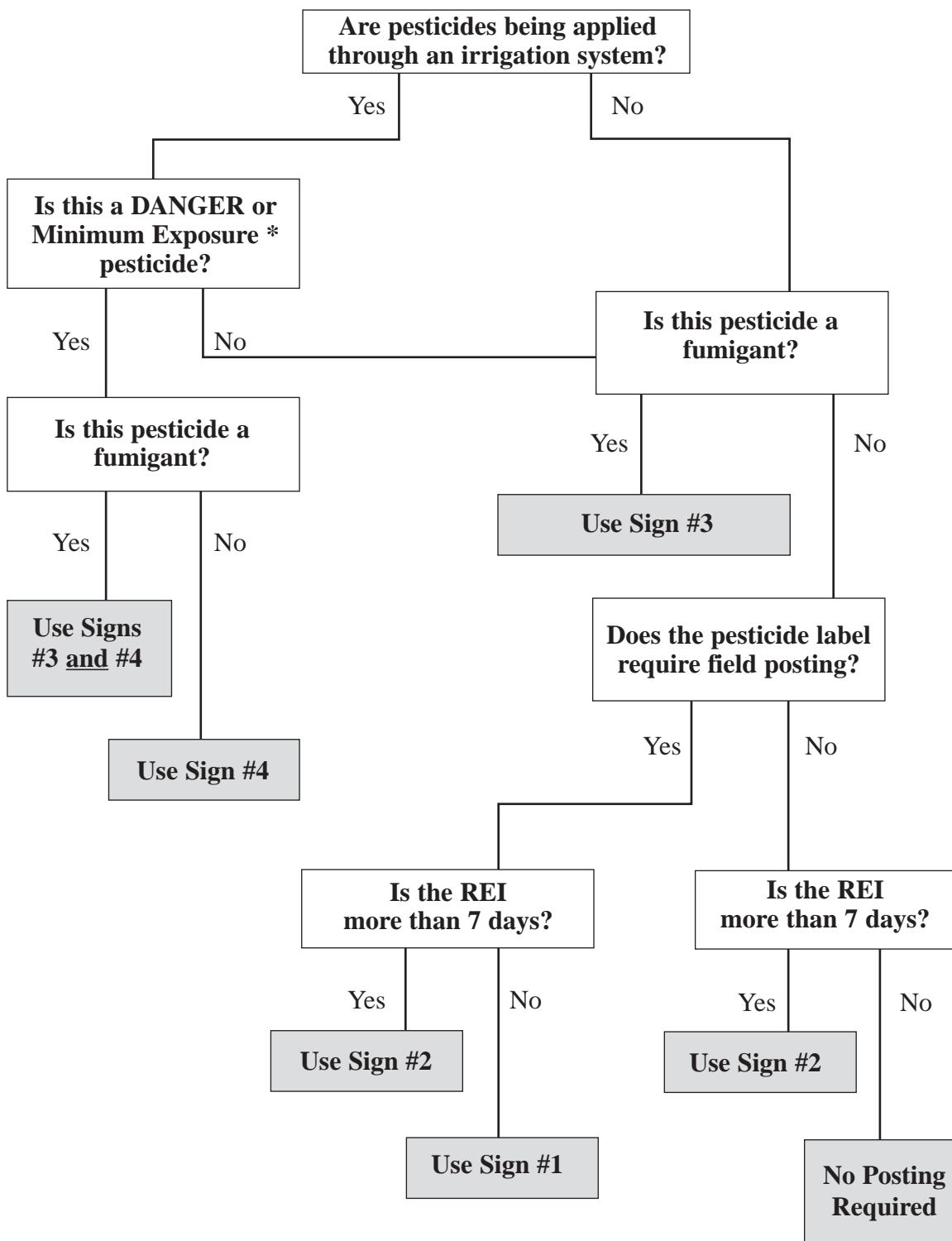
Where problems have been associated with specific pesticides, the Restricted Entry Interval has been extended by regulation:

Pesticide	Apples	Citrus	Corn	Grapes	Peaches Nectarines	Other Crops
<b>Azinphos-methyl</b> (Guthion)	14 (B)	30	21	14 (B)	14 (A)(B)	
<b>Chlorpyrifos</b>		2				
<b>Diazinon</b>		5		5	5	
<b>Endosulfan</b>	2	2	2	2	2	2
<b>Malathion</b>		1		1	1	
<b>Methidathion</b> (Supracide)		30				
<b>Methomyl</b> (Lannate)			7 (C)			
<b>Parathion-methyl</b> (non-encapsulated)	14	14 (D)	14 (D)	14	21	14 (D)
<b>Phorate</b> (Thimet)			7			
<b>Phosmet</b> (Imidan)				5	5	
<b>Propargite</b> (Omite/Comite)	21	42	7	30	21	21 (E)(F)
<b>Sulfur</b>				3 (G)		

### Footnotes:

- (A) This restricted entry interval for other crops applies to stone fruit, such as apricots, cherries, plums, and prunes, and pome fruit, such as pears, only. Stone fruit does not include almonds and other nut crops.
- (B) If the total Azinphos-methyl applied in the current calendar year is 1.0 pounds per acre or less, thinning may be done after seven days.
- (C) Applications of methomyl made after August 15, have a 21-day restricted entry interval.
- (D) This restricted entry interval applies only when more than one pound per acre of non-encapsulated parathion-methyl is applied.
- (E) The restricted entry interval for strawberries and field grown roses treated with propargite is 3 days.
- (F) The restricted entry interval for cotton fields treated with propargite is seven days. However, from the end of the restricted entry interval until the beginning of harvest, the employer shall assure that employees entering propargite treated cotton fields wear work clothing with long sleeves and legs and gloves.
- (G) This restricted entry interval for sulfur applies from May 15 through harvest.

# FIELD POSTING FLOWCHART



\*Minimal Exposure pesticides: bromoxynil (Buctril, Bronate), folpet, oxydemeton-methyl (Metasystox-R), propargite (Omite, Comite)

## FIELD POSTING SIGNS

### Sign #1: General Use

DANDER PELIGRO  
PESTICIDES PESTICIDAS



KEEP OUT  
NO ENTRE

### Sign #2: Restricted Entry

DANDER PELIGRO  
PESTICIDES PESTICIDAS



KEEP OUT  
NO ENTRE

Date of Unrestricted Entry: \_\_\_\_\_

Operator of the property: \_\_\_\_\_

Field Identification: \_\_\_\_\_

### Sign #3: Fumigation

DANDER PELIGRO  
PESTICIDES PESTICIDAS



DO NOT ENTER  
NO ENTRE

Fumigation in use: \_\_\_\_\_  
(product name)

Date and time of fumigation: \_\_\_\_\_

Name of applicator: \_\_\_\_\_

Phone: \_\_\_\_\_ Address: \_\_\_\_\_

### Sign #4: Chemigation

KEEP OUT NO ENTRE



PESTICIDES IN IRRIGATION WATER

PESTICIDAS EN AGUA DE RIEGO

## PESTICIDE SAFETY INFORMATION SERIES

The Pesticide Safety Information Series (PSIS) is provided for the training of pesticide handlers and fieldworkers. The leaflets are available at the Ag Commissioner's office and online (<http://www.cdpr.ca.gov>).

The following leaflets are available in **English and Spanish**.

- PSIS A-1:** Safety Requirements for Pesticide Handlers
- PSIS A-2:** Pesticide Storage, Transportation and Disposal
- PSIS A-3:** Engineering Controls  
(Closed Systems, Enclosed Cabs, Water Soluble Packaging)
- PSIS A-4:** First Aid and Decontamination
- PSIS A-5:** Respiratory Protection
- PSIS A-6:** Summary of Worker Safety Regulations
- PSIS A-7:** Laundering of Pesticide Contaminated Clothing
- PSIS A-8:** Hazard Communication Information for Employees Handling Pesticides
- PSIS A-9:** Hazard Communication Information for Employees Working in Agricultural Fields
- PSIS A-10:** Minimal Exposure Pesticides
- PSIS A-11:** Medical Supervision for Employees who Handle Organophosphate or Carbamate Pesticides

## SCHOOL CONTACTS

If fields are in the vicinity of schools, it is often helpful to establish a line of communication before the season begins.

### **Madera Unified District**      Transportation Department      **(559) 675-2288**

Dixieland School	18440 Road 19, Madera	673-9119
Eastin Arcola School	29551 Avenue 8, Madera	674-8841
Howard School	13878 Road 21 1/2, Madera	674-8568
La Vina School	8594 Road 23, Madera	673-5194
Madera High-South Campus	26433 Avenue, Madera	675-4450
Ripperdan School	26133 Avenue 7, Madera	674-0059

### **Chawanakee District**      Transportation Department      **(559) 877-6209**

Sierra View School	16436 Paula Road, Madera	645-1122
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### **Alview-Dairyland District**      Transportation Department      **(559) 665-2275**

Alview School	20513 Road 4, Chowchilla	665-2394
Dairyland School	12861 Avenue 18 1/2, Chowchilla	665-2394

### **Golden Valley District**      Transportation Department      **(559) 645-7500**

Liberty High School	12220 Road 36, Madera	645-3500
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### **Other Schools**

Seventh Day Adventist School	22310 Road 13, Chowchilla	665-1853
Madera Community College	30277 Avenue 12, Madera	675-4800

# Emergency Medical Care

The grower must post Emergency Medical Care information at each work site. The posting should be prominent enough that a passerby could phone for help, if necessary.

**Name of Physician/Medical Care Facility:**

\_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Telephone Number:** ( \_\_\_\_ ) \_\_\_\_\_

Procedures to be followed to obtain emergency medical care, if the facility above is not reasonably accessible from the work location:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## WRITTEN TRAINING PROGRAM

Employer Name: \_\_\_\_\_

Trainer's Name: \_\_\_\_\_

Trainer's Qualifications: \_\_\_\_\_ PA \_\_\_\_\_ QAL/QAC \_\_\_\_\_ PCA

### Training Materials:

Name of videos, pamphlets, or other training materials, and a brief description:

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_
4. \_\_\_\_\_  
\_\_\_\_\_
5. \_\_\_\_\_  
\_\_\_\_\_

**Pesticide labels** from the following products: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Pesticide Safety Information Series (PSIS)** leaflets used: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Material Safety Data Sheets (MSDS)** for the following products: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

# Pesticide Handler Training Program

## PESTICIDE SAFETY TRAINING RECORD

Print EMPLOYEE'S Name: \_\_\_\_\_

EMPLOYEE'S Signature: \_\_\_\_\_

Print EMPLOYER'S Name: \_\_\_\_\_

Print TRAINER'S Name: \_\_\_\_\_

Trainer Qualifications: \_\_\_\_\_

### ASSIGNED JOB DUTIES

☐ Mixer/Loader

☐ Service/Repair

☐ Applicator

☐ Flagger ☐ Other \_\_\_\_\_

Trainer's Initials

Employee's Initials

Annual Training	Specific Pesticides					

### Subjects as Specified in Section 6724(b) of the California Code of Regulations

Safe Use of Pesticides	READ THE LABEL: Signal word, caution statements, first aid, rate, dilution volume. Applicable laws and regulations. MSDS and PSIS leaflets.								
	PROTECTIVE CLOTHING AND EQUIPMENT: Coveralls, gloves, goggles, boots, respirator, apron. Equipment cleaning and maintenance.								
	USE OF ENGINEERING CONTROLS (i.e. closed system, enclosed cabs).								
	SAFETY PROCEDURES: To be followed while mixing, loading, applying pesticides. Procedures for handling non-routine tasks or emergency situations.								
	DRIFT: Confine the spray to the crop. Watch out for people, animals, waterways, or any special hazard. Work into the wind.								
	TRIPLE RINSE PESTICIDE CONTAINERS AT TIME OF USE: Never take home pesticide containers used at work.								
	STORE pesticides in a LOCKED and posted area or with an authorized person watching the cans.								
	WEAR CLEAN WORK CLOTHES DAILY. Be aware of pesticide residues on clothing.								
	WASH hands and arms with SOAP & WATER: Before eating, drinking, smoking, going to the bathroom. Emergency eye flushing techniques.								
	WASH COMPLETELY at the end of the workday. Change into clean clothing.								
EMERGENCY MEDICAL INFORMATION: Name, address, phone number of clinic, physician, or hospital emergency room & where information is located.									
Health Information	HEAT RELATED ILLNESS: Prevention, recognition, and first aid treatment.								
	LOCATION OF PESTICIDE SAFETY INFORMATION SERIES (PSIS): Material Data Safety Sheets (MSDS), Pesticide Use Records, safety posters, and Restricted Entry Interval information.								
	EMPLOYEE'S RIGHTS: Against discharge, discrimination. Rights to receive information.								
	THE NEED FOR IMMEDIATE DECONTAMINATION of skin and eyes when exposure occurs.								
	SYMPTOMS OF POISONING: Pinpoint pupils, nausea, shortness of breath, dizziness, headaches, blurred vision. Ways poisoning or injury can occur.								
	ROUTES THROUGH WHICH PESTICIDES ENTER THE BODY.								
	UNDERSTANDING THE IMMEDIATE AND LONG TERM HAZARDS involved in handling pesticides. Known or suspected chronic and acute effects.								
MEDICAL SUPERVISION: Required when working with carbamate or organophosphate pesticides with signal word of DANGER or WARNING.									
		Date of Training							





## Respiratory Protection Program

# WRITTEN OPERATING PROCEDURES

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Person Responsible for Program: \_\_\_\_\_

### I. Selection of Respirators

We require respirator use when working with these pesticides:

\_\_\_\_\_  
\_\_\_\_\_

We base our selection of respirators on:

\_\_\_\_\_  
\_\_\_\_\_

Personnel and selected respirators:

Employee

Respirator

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

We require emergency respirator protection to be available during these activities:

\_\_\_\_\_  
\_\_\_\_\_

### II. Use of Respirators

The employees listed above have received **respiratory protection training**.

The initial training was conducted by \_\_\_\_\_ on \_\_\_\_\_.  
(Instructor name) (Date)

Attached is a list of more recent training.

On a periodic basis, \_\_\_\_\_ conducts **routine inspections** of  
(Name)  
respiratory gear. Inspection of equipment kept for emergency occurs at least monthly.

A record of the most recent inspection is kept on the respirator (or its storage container).

Respiratory Protection Program

## EMPLOYEE STATEMENT OF MEDICAL CONDITION

\_\_\_\_\_  
(Print Employee Name)

In accordance with section 6738 of the California Code of Regulations, to the best of my knowledge, I have (\_\_\_), have no (\_\_\_) medical condition(s) which would interfere with wearing a respirator while engaged in potential pesticide exposure situations. I understand that heart disease, high blood pressure, lung disease or presence of a perforated ear drum require specific medical evaluation by a physician before safe use of a respirator can be determined.

\_\_\_\_\_  
(Signature of Employee)

\_\_\_\_\_  
(Date)

If the employee indicates that he or she has such a condition, then a physician must complete the bottom portion of this form before work requiring respirator use is allowed.

## REPORT OF MEDICAL EVALUATION

In accordance with section 6738 of the California Code of Regulations, I examined the employee listed above. For the employee named above, there is no current medical contraindication to wearing a respirator while working in potential pesticide exposure environments.

Other Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
(Printed Physician's Name)

\_\_\_\_\_  
(Physician's Name )

\_\_\_\_\_  
(Date)

Respiratory Protection Program

## DECLARATION DEL TRABAJADOR SOBRE SU CONDICION MEDICA

\_\_\_\_\_  
(Nombre del Empleado en Letra de Imprenta)

De acuerdo con la Sección 6738 del Código de Regulaciones de California, hasta donde yo sepa, yo (\_\_\_\_) tengo, yo no (\_\_\_\_) tengo ninguna condición medica que pueda interferir con el uso de un respirador durante situaciones de exposición a sustancias dañinas. Entiendo que enfermedades del corazón, presión de sangre alta, enfermedades de los pulmones o un tímpano perforado, requieren una evaluación medica especifica por un medico antes que se pueda determinar que puedo usar un respirador sin ningún peligro.

\_\_\_\_\_  
(Firma del Trabajador)

\_\_\_\_\_  
(Fecha)

If the employee indicates that he or she has such a condition, then a physician must complete the bottom portion of this form before work requiring respirator use is allowed.

## REPORT OF MEDICAL EVALUATION

In accordance with section 6738 of the California Code of Regulations, I examined the employee listed above. For the employee named above, there is no current medical contraindication to wearing a respirator while working in potential pesticide exposure environments.

Other Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
(Printed Physician's Name)

\_\_\_\_\_  
(Physician's Name )

\_\_\_\_\_  
(Date)

# EMPLOYEE PESTICIDE USE RECORD

Whenever an employee mixes, loads, or applies a DANGER or WARNING pesticide that contains an **organophosphate** or **carbamate**, the employer must maintain use records that identify the employee, name of the pesticide, and date of use. Retain these records for **three years**.

[illegible]

Medical Supervision Program

## MEDICAL SUPERVISION WRITTEN AGREEMENT

I, \_\_\_\_\_, agree to provide medical supervision for the  
(Physician name)  
employees of \_\_\_\_\_.  
(Grower or Company)

I possess a copy of, and am aware of the contents of, the following document:

**Medical Supervision of Pesticide Workers--Guidelines for Physicians.**

_____ (Physician)	_____ (Grower Name/Company)
_____ (Address)	_____ (Address)
_____ (City, State, Zip)	_____ (City, State, Zip)
_____ (Telephone)	_____ (Telephone)
_____ (Signed)	_____ (Signed)

# FIELDWORKER SAFETY TRAINING RECORD

**NAME OF EMPLOYER:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**NAME OF TRAINER:** \_\_\_\_\_

**TRAINER'S QUALIFICATION:** \_\_\_\_\_

Symptoms of poisoning: Pinpoint pupils, nausea shortness of breath, dizziness, blurred vision. Ways poisoning or injury can occur.	Location of pesticide safety information series (PSIS) Material safety data sheets (MSDS), pesticides use Reports, safety posters, and restricted entry intervals.	
Wash hands and arms with soap and water: Before eating drinking, smoking, or going to the bathroom Emergency Eye flushing techniques.	The need for immediate decontamination of skin and Eyes when exposure occurs.	
Wash completely at the end of the work day, change into clean clothing.	Employee's rights: against discharge, discrimination, Rights to receive information.	
Wear clean work clothing daily. Be aware of pesticide residues on clothing.	Routes through which pesticides enter the body.	
Understanding the immediate and long term hazards involved In handling pesticides. Known or suspected chronic and acute effects.	Prevention, recognition, and first aid treatment of Heat related illness.	
Emergency medical information: Name, address, phone number of clinic, physician, or hospital emergency room and where the Information is located.	Restricted entry intervals and posting. Do not enter treated areas.	
Never take home pesticide containers used at work.		

**Print Your Name**

**Sign Your Name**

<p>1. _____</p> <p>2. _____</p> <p>3. _____</p> <p>4. _____</p> <p>5. _____</p> <p>6. _____</p> <p>7. _____</p> <p>8. _____</p> <p>9. _____</p> <p>10. _____</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
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# ARCHIVO DE ENTRENAMIENTO DE PESTICIDAS PARA CAMPESIONS

**NOMBRE DE PATRON:** \_\_\_\_\_ **FECHA:** \_\_\_\_\_

**NAOMBRE DE ENTREADOR:** \_\_\_\_\_

**CALIFOCAIONES DE ENTRENADOR:** \_\_\_\_\_

Sintomas de envenenamiento: Pupilas muy pequeno, nausea, vertigo, delor de cabeza, vision borrosa, respiracion brevedad. Modo envennamiento o lesion puede ocurrir.	Localoxacion de serie informacionales de seguridad con pesticidas o datos de seguridad de la material. Archivos
Lave las manos y brasos con aqua y jabon: Antes de comer beber, fumar, o ida al bano. Tecnico de emergencia para enjuagarse los ojos.	de aplicaciones de pesticides, leteros de informacion, y informacion de intervalos restringidos de reingreso (REI)
Lavarse completamente al fin del dia de trabajo; cambiarse a ropa.	La necesidad para purificacion inmediatamente de la piel y los ojos cuando exposicion sucede.
Usa ropa de trabajo limpia diariamente. Darse cuenta de residuos de pesticides en su ropa.	Derechos de empleados: Contra decarga, discriminacion, y derechos de recibir informacion.
Entendimiento de los peligros cuando use pesticides. Saber efectos sospechosos o conocidos agudos o cronicos.	Rutas a traves como peticidas puended entrar al cuerpo. Boca, piel, ojos, inhalacion.
Donde buscar atencion medica en emergencian: Nombre, domicilla, numero de telefono de la clinica, doctor,o cuarto de emergencia del hospital.	Prevencion, reconocimiento, primeros auxilios, Tratamiento de enfermedad relacionada al calor.
Nunca se lleve de pesticides usadas en su trabajo para su casa.	Intervalos de entrar restringidos No entren a una area tratada.

**Escriba su Nombre en Letra de Molde**

**Firma**

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ 
---	--





# Madera County Department of Agriculture Weights and Measures

Robert J. Rolan, Agricultural Commissioner  
Sealer of Weights and Measures

David A. Robinson, Assistant  
Commissioner/Sealer

## LETTER OF AUTHORIZATION

I, \_\_\_\_\_, the permittee for \_\_\_\_\_,  
(Name of Responsible Party) (Business Name, or Name on Permit)

authorize \_\_\_\_\_ to operate on my behalf with regard  
(Name of Individual to be Authorized)

to my Restricted Material Permit or Operator Identification Number,

\_\_\_\_\_.  
(Permit or Operator Identification Number)

I understand that I remain responsible for:

- ✓ Submission of Notices of Intent to Apply Pesticides
- ✓ Submission of Pesticide Use Reports
- ✓ Training of my employees
- ✓ Assuring that my employees use appropriate Personal Protective Equipment
- ✓ Maintenance of all required records
- ✓ Liability for any damage to persons or property resulting from the possession or use of pesticides by my operation

Name \_\_\_\_\_ Signature \_\_\_\_\_  
(Print Name of Responsible Party) (Signature of Responsible Party)

Title \_\_\_\_\_ Date \_\_\_\_\_  
(Title of Responsible Party)

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